UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

The Honorable Kay Bailey Hutchison
United States Senate
Washington, D.C. 20510

JUN 17 1999

Dear Senator Hutchison:

This is in response to your April 15, 1999 letter to Administrator Carol Browner regarding our Maximum Achievable Control Technology (MACT) standards for cement kilns that burn hazardous waste fuels. You expressed concern that beyond-the-floor standards may not reduce risks and may reduce beneficial use of hazardous waste as fuel. Specifically, you ask whether we have data demonstrating that the beyond-the-floor standard will reduce risk and whether the reduced beneficial use of hazardous waste as fuel may outstrip the risk reduction. Finally, you ask whether beyond-the-floor standards are consistent with the Administrator's statement before your Committee that the Agency intends to develop tools and data that will move the air toxics program from an almost exclusively technology-based program to a risk-based program.

As you may be aware, we are evaluating a beyond-the-floor standard for combined lead and cadmium emissions from cement kilns. The emission level being achieved by the average of the best performing 12 percent of cement kilns--the floor level--is 650 μg/dscm. We are evaluating a beyond-the-floor emission level of 240 μg/dscm based on control of the feedrate to the kiln of lead and cadmium in hazardous waste. It is in this context that I address each of your concerns about this beyond-the-floor standard.

Would a Beyond-the Floor Lead and Cadmium Standard Reduce Risk?

A beyond-the-floor standard for lead and cadmium would reduce emissions of these metals by 5.5 megagrams per year beyond the reductions that would be provided by the floor emission level. This represents an additional 54 percent reduction in lead and cadmium emissions from the floor levels. Approximately 90 percent of these reductions are attributable to lead emissions. We consider this magnitude of additional lead reduction to be a very important element of our overarching concern for the health of American children, which underlies EPA's Children's Health Initiative. As you are aware, lead emissions are of the highest significance to children's health. If a pregnant woman is exposed to lead before or during her pregnancy, it can be carried to the unborn child and cause premature birth, low birth weight, or even abortion. For

infants or young children, lead exposure has been shown to decrease intelligence (IQ) scores, slow their growth, and cause hearing problems. We are therefore committed to reducing lead emissions wherever feasible.

With respect to risks at the floor and beyond the floor levels, it is very important to understand at the outset that toxicity data for lead do not exhibit a clear threshold of response. Evidence of neurotoxic and behavioral effects occur at levels so low as to be essentially without a threshold. Therefore, even very low levels of exposure to lead carries some risk to young children, who are the most sensitive to its effects. Our risk analysis indicates that there will be a small reduction in blood lead levels in children with a beyond-the-floor lead standard. Although we do not project a reduction in the numbers of children with blood lead levels that exceed the Centers for Disease Control and Prevention intervention level for initiating community lead prevention efforts (i.e., 10 micrograms lead per deciliter blood), our analysis does not address risks to children of minorities. These children are at higher risk because their blood lead levels are higher than other children's and, therefore, are most likely to benefit from even a small reduction in lead exposures. As mentioned above, we intend to go beyond the floor as part of our overall policy commitment to protect our children from the detrimental effects of lead wherever feasible.

Would a Beyond-the-Floor Lead and Cadmium Standard Result in Less Beneficial Use of Hazardous Waste As Fuel?

We do not believe a beyond-the-floor standard for lead and cadmium would affect the quantity of hazardous waste fuels burned in cement kilns. Our economic impacts analysis currently indicates that no additional cement facilities would stop burning hazardous waste if a beyond-the-floor standard were established for lead and cadmium rather than a floor standard. We project that one or two of 18 cement facilities may stop burning hazardous waste even if only the floor standard for lead and cadmium were adopted. If these cement facilities do actually stop burning hazardous waste, we predict that the hazardous waste fuel will be burned by other cement facilities or hazardous waste incinerators. This is because our data indicate that hazardous waste cement kilns and commercial incinerators are currently burning at levels significantly below their maximum practical capacity. Thus, we do not predict any less use of hazardous waste as fuel as a result of the beyond-the-floor standard for lead and cadmium.

Would a Decision to Promulgate a Beyond-the-Floor Lead and Cadmium Standard Be Consistent with the Administrator's Statement Before Your Subcommittee?

In February 24, 1999 testimony before the Senate Environment and Public Works Committee, the Administrator said that the air toxics program will focus on urban air toxics to develop tools and data that will move the program from an almost exclusively technology-based program to a risk-based program. The Administrator was referring to our initiative to move beyond simply counting emissions reductions under the air toxics program to measuring progress and establishing priorities in terms of risk reduction. This is not directly related to how the MACT standards are set in any particular rulemaking under Section 112 of the Clean Air Act. As you know, these standards are to be derived based primarily on the technological capability of various air pollution control equipment and strategies.

The Administrator's statement that we will seek to assess our progress under Section 112 in terms of a risk metric reflects, at least in part, our implementation of the Government Performance and Results Act (GPRA). Our current performance goal for the air toxics program, including not only the MACT standards, but all the statutory components of Section 112, is stated in terms of emission reductions. Because our knowledge and tools to assess the impacts of these emissions on public health and the environment were limited when we set this current goal, it reflects the straightforward intent to reduce total air toxics emissions as a means to directly reduce risks associated with exposure to air toxics. However, as we extend our knowledge, develop better assessment tools, and begin to implement the risk-based statutory requirements under Section 112, we intend to modify our goal to one directed specifically at risk reductions associated with exposure to air toxics. We will then use our risk-based knowledge and tools to assess progress in meeting our goals and to establish priorities for implementing various components of our air toxics program.

In developing MACT standards, however, we will continue to comply with the statutory mandate to establish standards that require the maximum degree of reduction in emissions of hazardous air pollutants that are achievable taking into account the cost of achieving the reductions and any nonair quality health and environmental impacts and energy requirements. These standards are a critical component of the overall air toxics program described in the Administrator's testimony.

I hope this addresses your concerns. If you have additional questions regarding the MACT rulemaking, please have your staff contact David Hockey, Project Director, at 703-308-8846.

Sincerely yours,

Elizabeth A. Cotsworth, Acting Director
Office of Solid Waste